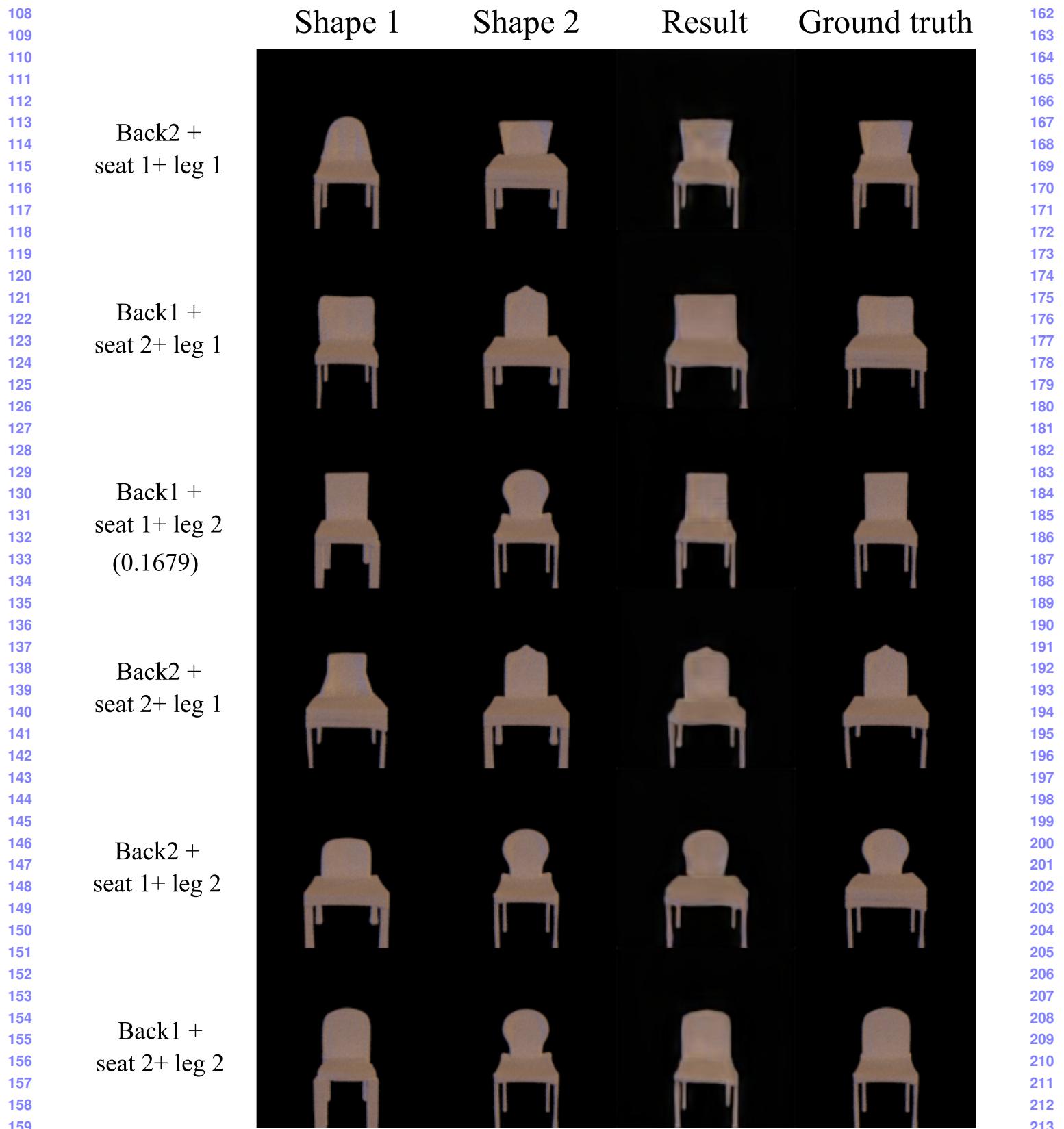


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015	We show more part replacement results of chair (Figure 1), car (Figure 2), cup (Figure 3), and guitar (Figure 4).
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	Shape 1	Shape 2	Result	Ground truth	
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220					274
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224					278
225					279
226					280
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228					282
229	Body2 + wheels 1				283
230					284
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253					307
254	Body1 + wheels 2				308
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268	Figure 2. The results of part replacing in car category. The result images are produced from the shape attributes composed of shape 1 and shape 2.				322
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Shape 1

Shape 2

Result

Ground truth

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Body 1 + grip 2



Body 2 + grip 1



Figure 3. The results of part replacing in cup category. The result images are produced from the shape attributes composed of shape 1 and shape 2.

	Shape 1	Shape 2	Result	Ground truth	
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433					487
434					488
435					489
436					490
437					491
438					492
439					493
440					494
441					495
442					496
443					497
444					498
445					499
446	Head 2 + body 1				500
447					501
448					502
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467					521
468					522
469					523
470					524
471	Head 1 + body 2				525
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473					527
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Figure 4. The results of part replacing in guitar category. The result images are produced from the shape attributes composed of shape 1 and shape 2.

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2. Part resizing results

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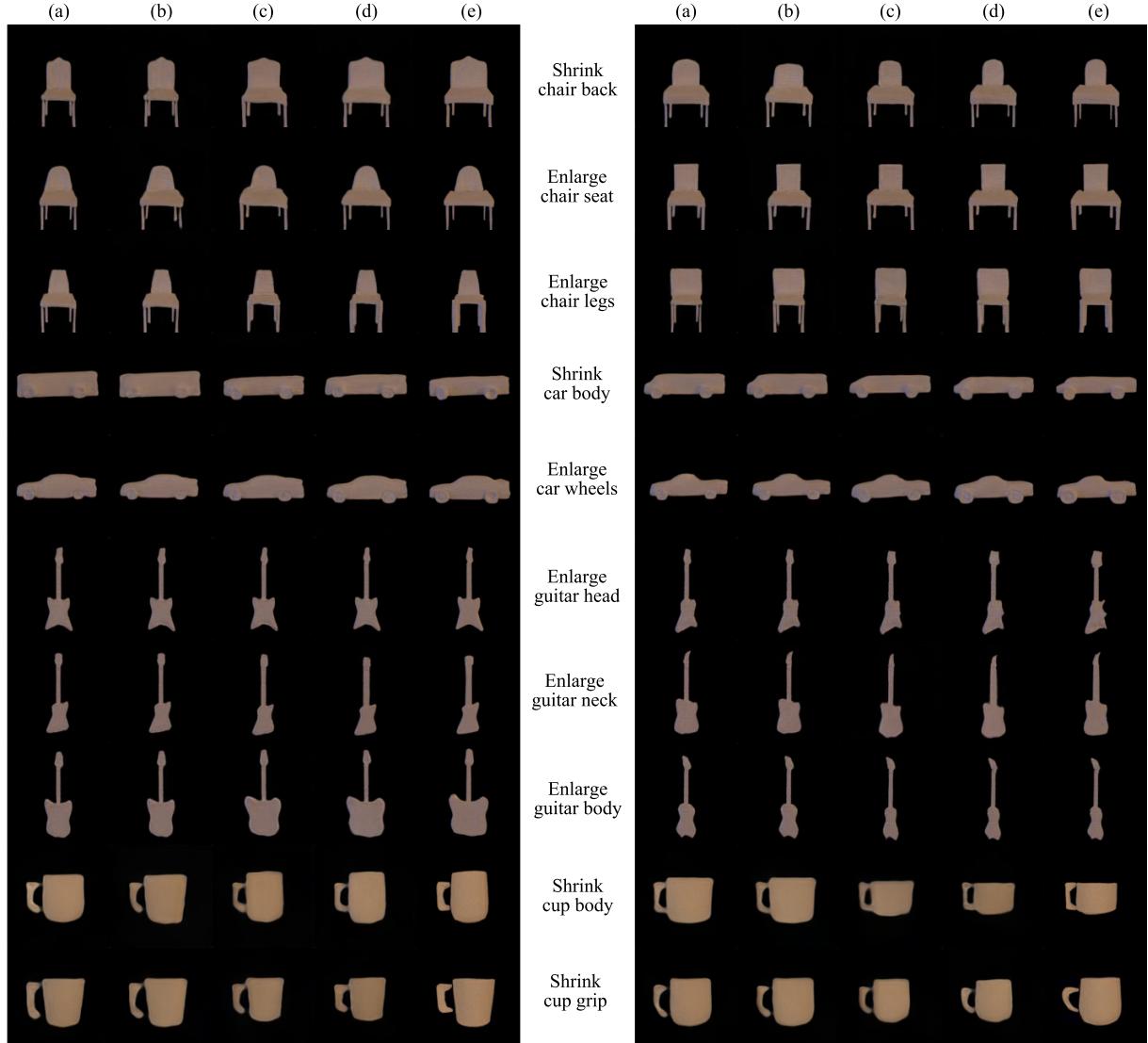


Figure 5. The results of part resizing in different categories. (a) is the source image, (b) is the result from mapping the $P + r^P$ directly, (c) is the GAN space trajectory finetuner result, (d) is the inverted result of ground truth, and (e) is the rendered ground truth.

648 **Using multiple finetuner on the same image** Further more, we show that we can apply multiple latent trajectory finetuners
649 on a single source image.

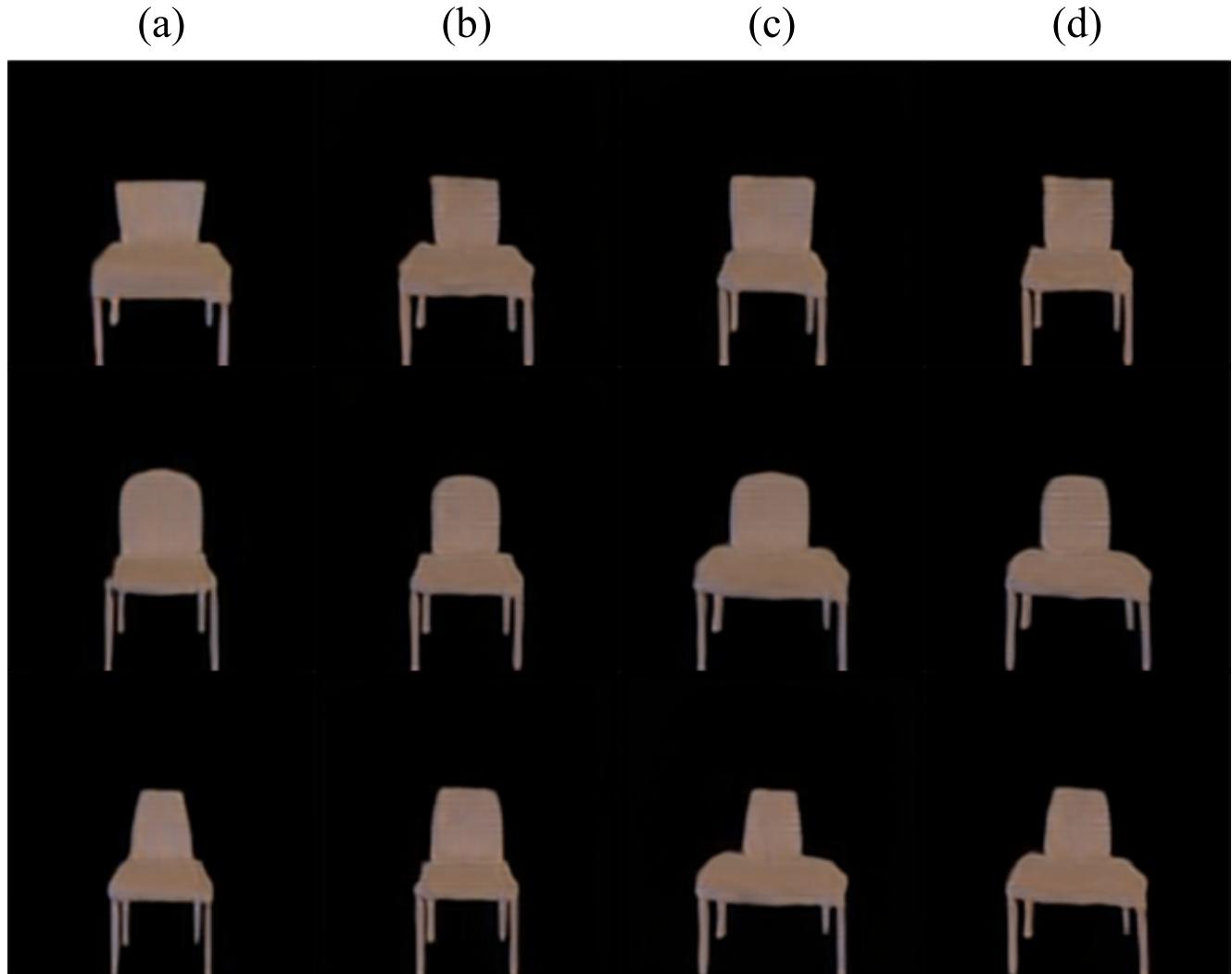
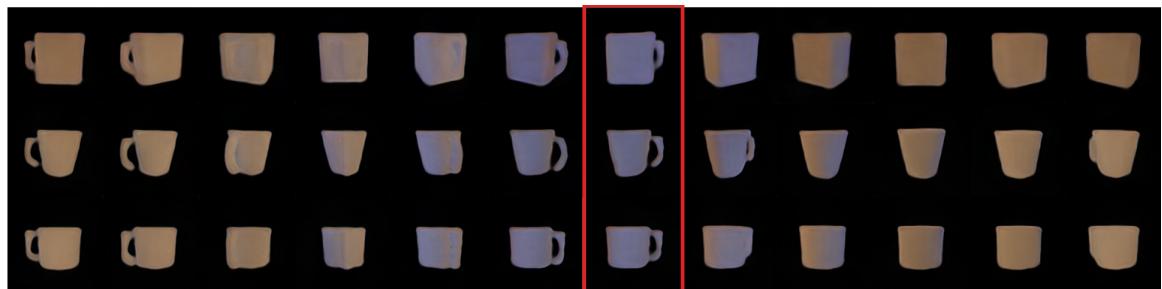


Figure 6. The results of part resizing with multiple GAN latent trajectory finetuners. (a) is the source image, (b) is the result of back finetuner, (c) is the seat finetuner result, (d) is the result of both finetuners.

756 **3. Viewing angle manipulation results**

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757 Cup 1



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760 Cup 2

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763 Cup 3

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768 Percep. loss ($\times 10^{-3}$)

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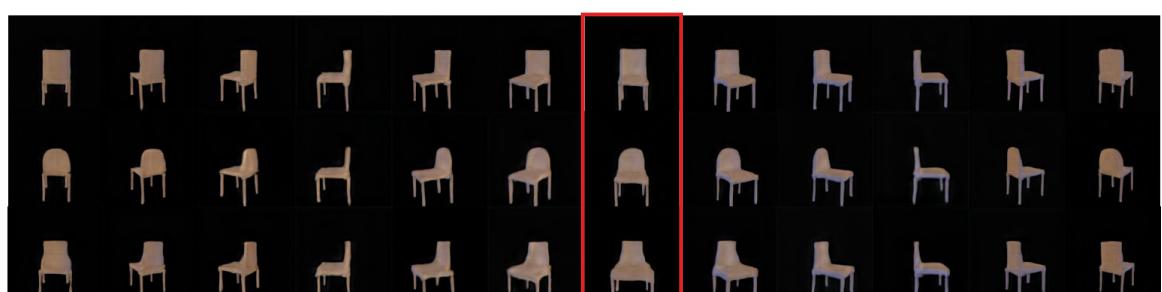
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769 Percep. loss ($\times 10^{-3}$)

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770 Figure 7. The results of viewing angle manipulation in chair and cup categories.

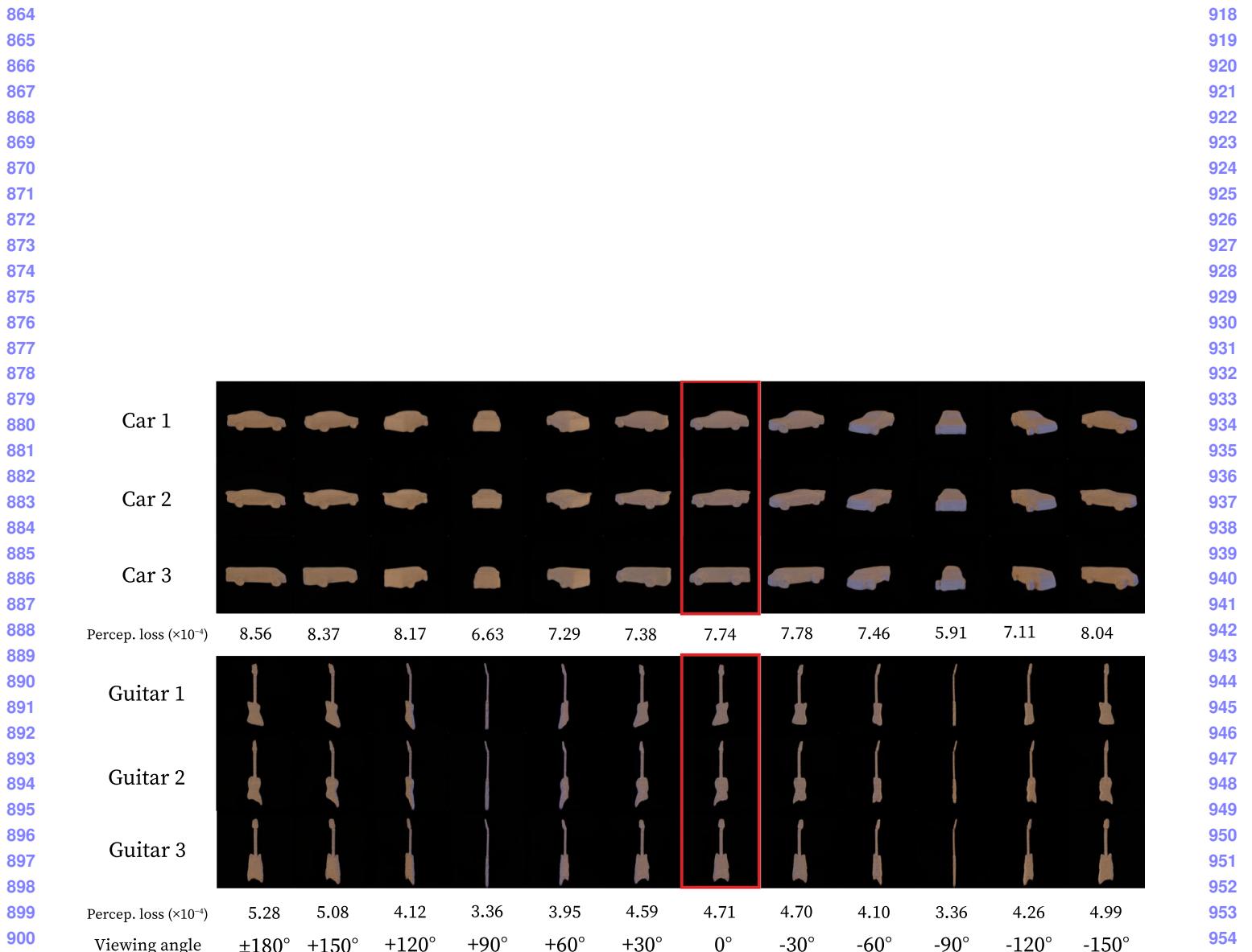


Figure 8. The results of viewing angle manipulation in car and guitar categories.